

Legends

Supplemental Table 1. SuperArray analysis of genes expression altered by letrozole resistance. The basal gene expression of AC-1 versus LTLT-Ca cells were examined and select genes that exhibited significant changes in gene expression that are 3-fold or greater are shown.

Supplemental Table 2. Letrozole Resistant Proteomic Analysis. Using a gel free proteomic approach combining tandem mass tag (TMT) labeling, two-dimensional HPLC, and high-resolution mass spectrometry, over 1700 proteins were identified with quantitative abundance ratios present in both the letrozole resistant (LTLT-Ca) and the sensitive (AC-1) breast cancer cells. Of the quantified proteins, a total of 863 were significantly altered ($p < 0.05$), with 411 proteins upregulated and 452 downregulated by at least 20%.

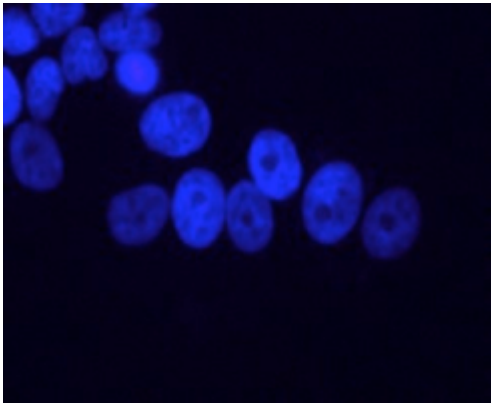
Supplemental Figure 1. Letrozole-Resistance Induced Fascin Expression. (A) AC-1 and (B) LTLT-Ca cells were stained for fascin (green) and DNA (blue) and images were captured using an Olympus Bx41 microscope.

Supplemental Table 1. Expression ratios of select genes from the Breast Cancer and Estrogen Signaling Panel SuperArray analysis that exhibited 3-fold or greater changes in the letrozole resistant cells

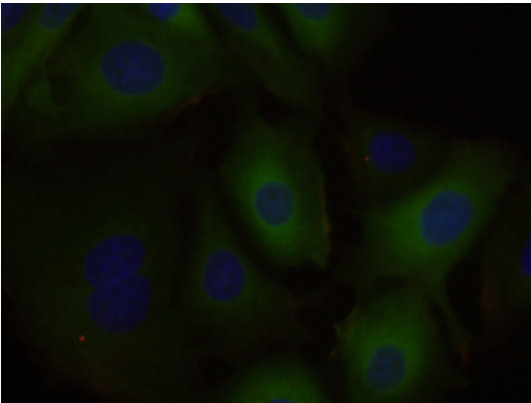
Symbol	Description	Fold Change (LTLT-Ca/AC1)
AR	Androgen receptor	-12.6
BAG1	BCL2-associated athanogene	5.0
BCL2	B-cell CLL/lymphoma 2	-346.2
C3	Complement component 3	249.6
CCNA1	Cyclin A1	-103.9
CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)	11.6
CLU	Clusterin	5.5
COL6A1	Collagen, type VI, alpha 1	53.7
CTSB	Cathepsin B	6.9
CYP19A1	Cytochrome P450, family 19, subfamily A, polypeptide 1	4.6
EGFR	Epidermal growth factor receptor	28.1
ERBB2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2	5.9
ESR1	Estrogen receptor 1	-28.1
FAS	Fas (TNF receptor superfamily, member 6)	6.2
FOSL1	FOS-like antigen 1	5.8
GABRP	Gamma-aminobutyric acid (GABA) A receptor, pi	6202.3
GSN	Gelsolin (amyloidosis, Finnish type)	3.5
ID2	Inhibitor of DNA binding 2, dominant negative helix-loop-helix protein	-9.7
IGFBP2	Insulin-like growth factor binding protein 2, 36kDa	-3.6
IL6	Interleukin 6 (interferon, beta 2)	89.2
IL6ST	Interleukin 6 signal transducer (gp130, oncostatin M receptor)	5.9
ITGA6	Integrin, alpha 6	3.8
JUN	Jun oncogene	4.0
KLF5	Kruppel-like factor 5 (intestinal)	9.4
KLK5	Kallikrein-related peptidase 5	9.5
MUC1	Mucin 1, cell surface associated	19.5
NFYB	Nuclear transcription factor Y, beta	3.1
PAPPA	Pregnancy-associated plasma protein A, pappalysin 1	6.6
PGR	Progesterone receptor	-1891.3
PLAU	Plasminogen activator, urokinase	3.0
PTGS2	Prostaglandin-endoperoxide synthase 2	34.1
SERPINA3	Serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 3	-6.5
SERPINB5	Serpin peptidase inhibitor, clade B (ovalbumin), member 5	23.6
SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1	15.1
SLC7A5	Solute carrier family 7 (cationic amino acid transporter, y+ system), member 5	-21.5
TFF1	Trefoil factor 1	-1146.6
TNFAIP2	Tumor necrosis factor, alpha-induced protein 2	379.7
TP53	Tumor protein p53 (Li-Fraumeni syndrome)	3.7
B2M	Beta-2-microglobulin	11.0

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15	ITGA6	Integrin, alpha 6	3.8
16	JUN	Jun oncogene	4
17	CYP19A1	Cytochrome P450, family 19, subfamily A, polypeptide 1	4.6
18	BAG1	BCL2-associated athanogene	5
19	CLU	Clusterin	5.5
20	FOSL1	FOS-like antigen 1	5.8
21	ERBB2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2	5.9
22	IL6ST	Interleukin 6 signal transducer (gp130, oncostatin M receptor)	5.9
23	FAS	Fas (TNF receptor superfamily, member 6)	6.2
24	PAPPA	Pregnancy-associated plasma protein A, pappalysin 1	6.6
25	CTSB	Cathepsin B	6.9
26	KLF5	Kruppel-like factor 5 (intestinal)	9.4
27	KLK5	Kallikrein-related peptidase 5	9.5
28	B2M	Beta-2-microglobulin	11
29	CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)	11.6
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Supplemental Figure 1. Letrozole-Resistance Induced Fascin Expression



AC-1



LTLT-Ca

Blue = DNA
Green = Fascin